Singh (1964) has modelled a gamma-weighted negative exponential distribution describing the probability distribution of the waiting time between effective marriage and the time of first conception. While noting that the waiting time distribution for the first and the nth order of conception ($n = 2, 3, \ldots$) cannot be obtained from Singh's result, Biswas and Pachal (1983), using Palm probability techniques, have obtained the waiting time distribution for the first and the nth order of conception ($n = 2, 3, \ldots$) corresponding to the dependent process. The present paper is devoted to illustrating a simple estimation technique for the parameters of the distribution, using the data provided in 'fertility differentials in India' (Vital Statistics Division of the Registrar General of India) as well as Srinivasan's data which provides the average interval between the first and the second birth for a class of women in South India.

A Truncated Probability Distribution for the First Birth Interval

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A truncated probability model for the first birth interval has been derived under the justifiable assumption that a female attains the susceptible state after a variable time since marriage. This may be due to adolescent sterility or social custom prevalent in the community like nonoccurrence of menarche, frequent visits to the parental home by the female even after marriage, etc. For this variable time we have assumed a truncated exponential distribution. From the application of the model simple expressions for the first two moments have also been obtained. The model has been illustrated with a set of data, truncated at different points of time, taken from 'Rural Development and Population Growth A Sample Survey 1978' conducted under the auspices of Demographic Research Centre (presently Centre of Population Studies), Banaras Hindu University.

On a Stochastic Model for the Study of the Open Birth Interval

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In the present paper a stochastic model for describing the variation in the length of the open birth interval has been derived with a provision that a certain proportion of women are becoming secondarily sterile subsequently to the last birth. Application of the model has been illustrated with an observed set of data by estimating the risk parameters of conception and secondary sterility.